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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/807,484

03/23/2004

Gary Vacon

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34845 7590 01/09/2009  
Anderson Gorecki & Manaras LLP  
33 NAGOG PARK  
ACTON, MA 01720

EXAMINER

SATKIEWICZ, THOMAS E

ART UNIT

PAPER NUMBER

2614

NOTIFICATION DATE

DELIVERY MODE

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ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/807,484	<b>Applicant(s)</b> VACON ET AL.	
	<b>Examiner</b> Thomas E. Satkiewicz	<b>Art Unit</b> 2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

Applicant's amendment filed 10/20/2008 has been entered. Claims 1, 14, 17, and 18 have been previously amended. No claims have been cancelled. No Claims have been added. Claims 1-18 are still pending in this application, with claims 1, 14, 17, and 18 being Independent claims.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2 Claims 1-2, 4-8, 10-15, and 17-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Hind et al. (US 7,212,828).

With regards to Claim 1, Hind teaches a method of authenticating (Security; Column 2, Line 38) a client device (Client Device; Column 2, Line 50) for inclusion in a wireless network (Wifi Network; Column 2, Line 39) including the steps of: responsive to a user action at the client device and at one other device (Client Devices; Column 2, Line 62) in the wireless network, determining a distance (Client Coverage; 308, Fig #2) between the client device and the at least one other device in the wireless network; and authenticating the client device if the distance is within a preselected range (Spatial Boundary; Column 2, Line 42) of distances that is less than maximum communication range (Outside the Boundary; Column 2, Line 43) of the network.

With regards to claim 2, Hind teaches a method wherein the user action includes the transmission (Multiple Directional Antenna Arrays; Column 4, Lines 11-12) of a signal to the client device (Client Device; Column 2, Line 50).

With regards to claim 4, Hind teaches a method, wherein the transmission (Multiple Directional Antenna Arrays; Column 4, Lines 11-12) of a signal (Cryptographic Key; Column 3, Line 17) to the client device (Client Device; Column 2, Line 50) occurs in response to a radio transmission (Measurement Data; Column 3, Line 5) by the user in the proximity of the client device (Client Device; Column 2, Line 50).

With regards to claim 5, Hind teaches a method, wherein the radio transmission (Multiple Directional Antenna Arrays; Column 4, Lines 11-12) by the user is performed using the at least one other device (Client Devices; Column 2, Line 62) in the wireless network (Wifi Network; Column 2, Line 39).

With regards to claim 6, Hind teaches a method, wherein the at least one other device (Client Devices; Column 2, Line 62) is a fob (Digital Signal Processor; Column 5, Lines 11-12).

With regards to claim 7, Hind teaches a method, wherein the user action includes the disconnection of power (Disable the Functionality; Column 7, Line 57) from the client device (Client Device; Column 2, Line 50).

With regards to claim 8, Hind teaches a method, wherein the step of determining the distance (Spatial Position; Column 4, Line 34) between the client device (Client Device; Column 2, Line 50) and the at least one other device (Client Devices; Column 2, Line 62) includes the steps of waiting for a received a signal (Angular Readings; Column 4, Line 57) from the at least one other device (Client Devices; Column 2, Line 62).

With regards to claim 10, Hind teaches a method, further including the step of measuring a strength of the signal (Signal Strength Triangulation; Column 7, Line 64) received from the at least one other device (Client Devices; Column 2, Line 62) and associating the strength of the signal with a measured distance [Locate Wireless Local Area A Network (WLAN) Clients; Column 7, Lines 64-65].

With regards to claim 11, Hind teaches a method, further including the step of determining whether the measured distance (Inside or Outside; Column 7, Lines 28-29) is within the predetermined range (Spatial Boundary; Column 7, Line 29) of distances.

With regards to claim 12, Hind teaches a method, further including the step of identifying a master device (Base Station; Column 4, Lines 25-26) in the wireless network (Wifi Network; Column 2, Line 39).

With regards to claim 13, Hind teaches a method, further including the step of storing an identifier (An Enumerated List of these Devices can be Created, and a System using techniques disclosed herein can then Test for the Devices on this List Remaining within the Defined Boundary; Column 8, Lines 40-43) of the client device (Client Device; Column 2, Line 50) and the at least one other device (Client Devices; Column 2, Line 62) in a table (List; Column 8, Line 40) in the client device (Client Device; Column 2, Line 50)..

With regards to claim 14, Hind teaches an apparatus (WiFi Access Point; Column 4, Line 25) for authenticating (Security; Column 2, Line 38) a client device (Client Device; Column 2, Line 50) in a wireless network (Wifi Network; Column 2, Line 39) including at least one other device (Client Devices; Column 2, Line 62): means for detecting (Detecting a Transmission; Column 5, Lines 2-3) a user action at the client device; means for receiving (Send a Signal; Column 8, Lines 48-49), at the client device, a signal transmitted (Send a Signal; Column 8, Lines 48-49) from the at least one other device in response to the user action (Detecting a Transmission; Column 5, Lines 2-3); means for determining a distance between the client device and the at least one other device; and means for authenticating the client device and the at least one other device if the distance is within a preselected range (Spatial Boundary; Column 2, Line 42) of distances.

With regards to claim 15, Hind teaches an apparatus (Apparatus; Column 9, Line 28), wherein the means for determining a distance (Locate; Column 7, Line 64) operates in response to a strength of the signal (Signal Strength Triangulation; Column 7, Line 64).

With regards to Claim 17, Hind teaches a wireless device (Wireless Device; Column 4, Line 9) for use in a wireless network (Wifi Network; Column 2, Line 39), comprising: a memory (Stores; Column 6, Line 25) for storing a table (Table; Fig 7; Column 6, Line 26) of identities of member devices of the wireless network (Wifi Network; Column 2, Line 39), wherein the identity of each member device (Association Identifier, 705; Fig 7; Column 6, Lines 39-40) is only stored in the table after the member device (Client Device; Column 2, Line 50) is authenticated (Security; Column 2, Line 38), and wherein each member device is only authenticated if its physical proximity to another member (Remote Measurement Point; Column 6, Line 15) of the wireless network is within a preselected range (Spatial Boundary; Column 2, Line 42) that is less than maximum communication range of the network during authentication of the respective member (Client Device; Column 2, Line 50).

With regards to claim 18, Hind teaches a computer (Computes; Column 4, Line 59) having a memory (Stores; Column 6, Line 25) for storing computer readable program code (Base Station's Processing Load; Column 5, Line 15) thereon, a computer program (Computer Program; Column 9, Line 43) for authenticating (Security; Column 2, Line 38) a client device (Client Device; Column 2, Line 50) for inclusion (Allowed to Connect; Column 4, Line 37) in a wireless network (Wifi Network; Column 2,

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Line 39), the computer program including: program code (Computer Program Instructions; Column 9, Line 42) operating responsive (Function in a Particular Manner; Column 9, Line 46) to a user action (Detecting a Transmission; Column 5, Lines 2-3) at the client device and at one other device (Client Devices; Column 2, Line 62) in the wireless network (Wifi Network; Column 2, Line 39), for determining a distance between the client device and the at least one other device (Client Devices; Column 2, Line 62) in the wireless network (Wifi Network; Column 2, Line 39); and program code for authenticating the client device if the distance is within a preselected range (Spatial Boundary; Column 2, Line 42) of distances.

***Claim Rejections - 35 USC § 103***

3. The text of those sections of Title 35, U.S. Code 103(a) not included in this action can be found in a prior Office action.
4. Claims 3, 9, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hind et al. (US 7,212,828).

With regards to claim 3, Hind teaches a method, wherein the transmission (Listens; Column 1, Line 47) of a signal (Beacon; Column 1, Line 48) to the client device (Client; Column 1, Line 44), fails to specifically teach that the above method occurs in response to the depression of at least one button on the client device (Client, Column 1, Line 44).



However for Hind to activate synchronization with the WiFi Network, Hind would have to depress the button to turn on the Client Device. At least, this would be an extremely obvious manner to activate a feature.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to utilize a button that would be depressed to turn the Client Device on by Hind. Examiner takes official notice that depressing a button to activate a feature would have been an obvious choice.

With regards to claim 9, Hind fails to specifically teach a method, wherein the client device (Client Device; Column 2, Line 50) is not authenticated (Security; Column 2, Line 38) if more than one signal (Beacon; Column 1, Line 48) is received during the step of waiting (Awaits; Column 1, Line 29).

However, at the time of Hind's invention the Strength of Received Signal (As Used By Vacon) or Vector Intersection of Signals (As Used By Hind) methods were both used to measure distances between Transmitters and Receivers. Hind used the Vector Intersection of Signals method, because Hind thought it was more accurate (Column 4, Lines 16-23).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to utilize either the Strength of Received Signal or Vector Intersection of Signals to measure distances between Transmitter and Receiver could have been used. Using old and known alternative techniques to accomplish the same result, would have been obvious and does not rise to the level of patentability.

With regards to claim 16, Hind fails to specifically teach a method, wherein the means for authenticating (Security; Column 2, Line 38) further includes means for determining that only one signal (Beacon; Column 1, Line 48) is received by the client device (Client Device; Column 2, Line 50) in response to the user action (Detecting a Transmission; Column 5, Lines 2-3).

However, at the time of Hind's invention the Strength of Received Signal (As Used By Vacon) or Vector Intersection of Signals (As Used By Hind) methods were both used to measure distances between Transmitters and Receivers. Hind used the Vector Intersection of Signals method, because Hind thought it was more accurate (Column 4, Lines 16-23).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to utilize either the Strength of Received Signal or Vector Intersection of Signals to measure distances between Transmitter and Receiver could have been used.

### ***Response to Arguments***

5. Applicant's arguments filed 10/20/2008 have been fully considered but they are not persuasive. With regards to Claim 1, Applicant argues that "Hind's boundary is not equivalent to the range recited in the claims." Claim 1 recites "authenticating the client device if the distance is within a preselected range that is less than the maximum communication range of the network." Examiner respectfully disagrees with applicant's argument because Hind states, "To determine the transmitter's position in a 3-dimensional space (e. g., a suite within an office building)" [Column 6, Lines 10-11]. The

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suite is a preselected range which is less than the maximum communication range of the network (Office Building and/or Outside the Office Building). Also Fig. 3 is a drawing that Hind uses to describe the Phase Angle Method of locating an object. Hind's Spatial Boundary is equivalent to Applicant's preselected range and Hind made no reference to the maximum range of the Base Station, because the maximum range is not needed to explain the Phase Angle Method of locating an object. Applicant also states, "Note that rather than having to define a boundary with specialized sensors as in Hind, the presently claimed invention automatically defines an area based on the location of devices that are already authenticated." Hind states, "The remote measurement points are themselves WiFi clients" (Column 6, Lines 15-16), so Hind's remote measurement points are devices that are already authenticated same as the applicant's devices.

With regards to Claim 10, Applicant states "..... which recites determining distance from signal strength, note Hind expressly dismisses this technique at Column 4, lines 22-23, stating "the signal strength seen at a receiver is of no use in determining the distance to the transmitter." Examiner agrees that Hind dismisses Signal Strength, because Hind used what Hind determined was a better method (Equilateral Triangle Configuration).

With regards to Claim 3, Applicant request an actual prior art reference of a response to the depression of at least one button on the Client Device. The reference is Matz (U.S. PG Pub 2004/0255321) which is a Set-Top-Box (105; Fig 1) that provides a control interface through which a subscriber makes viewing selection by, e.g., using a remote control unit, a keyboard, or a control panel (Paragraph 0043, Lines 3-5).

With regards to Claim 9 and 16, Applicant request an actual prior art reference of not to authenticate when receiving more than one signal. The reference is Johnson et al. (U.S. 5,345,595) and the term used by Johnson is Overlapping Calls at Column 3, Line 45.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas E. Satkiewicz whose telephone number is (571) 270-1948. The examiner can normally be reached on Monday to Thursday 6:30AM to 3:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar can be reached on (571) 272-7488. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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